

10/527100

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 March 2004 (25.03.2004)

PCT

(10) International Publication Number
WO 2004/024072 A2

(51) International Patent Classification⁷: **A61K** CA 94010 (US). WU, Thomas D. [US/US]; 113 Elsie Street, San Francisco, CA 94110 (US).

(21) International Application Number:
PCT/US2003/028317 (74) Agent: CARPENTER, David A.; c/o GENENTECH, INC., MS 49, 1 DNA Way, South San Francisco, CA 94080-4990 (US).

(22) International Filing Date:
10 September 2003 (10.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/410,340 11 September 2002 (11.09.2002) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): GENENTECH, INC. [US/US]; 1 DNA Way, SOUTH SAN FRANCISCO, CA 94080 (US).
(72) Inventors; and
(75) Inventors/Applicants (*for US only*): BODARY, Sarah C. [US/US]; 1520 Sand Hill Road, Apt. 205, Palo Alto, CA 94066 (US). CLARK, Hilary [US/US]; 495 Harkness Avenue, San Francisco, CA 94134 (US). HUNTE, Brisdell [US/US]; 1133 Dolores Street, #16, San Francisco, CA 94110 (US). JACKMAN, Janet K. [US/US]; 94 Patrick Way, Half Moon Bay, CA 94019 (US). SCHOENFELD, Jill R. [US/US]; 680 Spring Creek Drive, Ashland, OR 97520 (US). WILLIAMS, P. Mickey [US/US]; 509 Alto Avenue, Half Moon Bay, CA 94019 (US). WOOD, William I. [US/US]; 35 Southdown Court, Hillsborough, CA 94010 (US).
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2004/024072 A2

(54) Title: NOVEL COMPOSITIONS AND METHODS FOR THE TREATMENT OF IMMUNE RELATED DISEASES

(57) Abstract: The present invention relates to compositions containing novel proteins and methods of using those compositions for the diagnosis and treatment of immune related diseases.

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
11 October 2001 (11.10.2001)

PCT

(10) International Publication Number
WO 01/75166 A3

(51) International Patent Classification⁷: C03C 17/34. (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(21) International Application Number: PCT/US01/10482

(22) International Filing Date: 30 March 2001 (30.03.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/193,767 31 March 2000 (31.03.2000) US

(71) Applicant: GENENTECH, INC. [US/US]: 1 DNA Way, South San Francisco, CA 94080 (US).

(72) Inventors: LOWE, David, G.; 35 Via Delizia, Hillsborough, CA 94010 (US). MARSTERS James, C., Jr.; 809 McKinley, Oakland, CA 94610 (US). ROBBIE, Edward, P.; 203 Hartford Street, San Francisco, CA 94114 (US). SMITH, Victoria; 19 Dwight Road, Burlingame, CA 94010 (US).

(74) Agents: CONLEY, Deirdre, L. et al.: Genentech, Inc., MS 49, 1 DNA Way, South San Francisco, CA 94080-4990 (US).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 2 May 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/75166 A3

(54) Title: COMPOSITIONS AND METHODS FOR DETECTING AND QUANTIFYING GENE EXPRESSION

(57) Abstract: Compositions and methods for improving detection sensitivity in nucleic acid microarray analysis are disclosed, including methods of purifying nucleic acids, methods of synthesizing fluorescent DNA probes, methods of hybridization, and methods of activating a substrate for target molecule attachment are disclosed.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/10482

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C03C17/34 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C03C C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 20640 A (SENSORCHEM INTERNATIONAL CORP) 29 April 1999 (1999-04-29) page 35, line 28 -page 36, line 8; claims page 45, line 32 -page 46, line 14 ---	1-64, 84-92
X	US 5 997 961 A (LIANG LIANG ET AL) 7 December 1999 (1999-12-07) column 7, line 63 -column 8, line 11; claims ---	41-54
A	EP 0 947 246 A (CORNING INC) 6 October 1999 (1999-10-06) page 2 -page 3 -----	1-64, 84-92

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

9 October 2001

27.02.2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

VAN BOMMEL, L

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/10482

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-64, 84-92

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-64,84-92

Microarrays, activated glass slides and methods for their preparation, in which surface silanization is carried out in toluene in the absence of acetone or an alcohol, as well as analysis methods in which these microarrays are used.

2. Claims: 65-83

Methods for preparing detectably labeled sDNA, cDNA or cRNA probes

3. Claims: 93-104

Methods of hybridizing a detectable polynucleotide probe to a target polynucleotide on a support surface.

IN' RNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/10482

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9920640	A	29-04-1999	US	6169194 B1	02-01-2001
			AU	9526098 A	10-05-1999
			WO	9920640 A2	29-04-1999
			EP	1023309 A2	02-08-2000
			JP	2001520396 T	30-10-2001
			US	6159695 A	12-12-2000
<hr/>					
US 5997961	A	07-12-1999	US	6270903 B1	07-08-2001
<hr/>					
EP 0947246	A	06-10-1999	EP	0947246 A1	06-10-1999
			CN	1314873 T	26-09-2001
			EP	1068155 A1	17-01-2001
			WO	9940038 A1	12-08-1999
<hr/>					